



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink L-18

**Issued:** 3 Feb 2021 / 0900L (1400Z)

**Valid:** 4 Feb 2021 / 0109 – 0130L (0609 – 0630Z)



**Forecast Discussion:** Another cold day is expected across the Space Coast as upper level troughing continues across the eastern US, maintaining cold air advection across the state. Breezy conditions will gradually diminish as the surface low near New England accelerates northeast and high pressure builds across Florida. Temperatures will struggle to reach the 50s today, despite the clear and sunny skies. Nearly ideal conditions are expected for launch early Thursday morning as winds potentially drop to the single digits, and radiational cooling maximizes. Only a very slight concern for liftoff winds exists, should the low pressure system move out slower than predicted.

Temperatures will begin to rebound into the upper 60s Thursday afternoon as winds veer out of the south on the backside of the exiting high pressure ridge. A quick change in the pattern occurs Friday night as a cold front approaches the Deep South, causing winds to increase during the backup launch window. As a result, the primary concern will be Liftoff Winds once again.

Launch Day		Probability of Violating Weather Constraints					
<b>Launch Day</b>		<b>&lt;10%</b>		Primary Concerns: Liftoff Winds			
		Weather Conditions				Additional Risk Criteria	
		<b>Weather/Visibility:</b> None / 7 mi.		<b>Clouds</b>		<b>Upper-Level Wind Shear:</b> Low	
		<b>Temp/Humidity:</b> 40°F / 72%		Type	Coverage	Base (ft)	Tops (ft)
<b>Liftoff Winds (200'):</b> 330° 5 - 10 mph		Cirrostratus	Scattered	25,000	28,000	<b>Solar Activity:</b> Low	
24-Hour Delay		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>		<b>20%</b>		Primary Concerns: Liftoff Winds			
		Weather Conditions				Additional Risk Criteria	
		<b>Weather/Visibility:</b> None / 7 mi.		<b>Clouds</b>		<b>Upper-Level Wind Shear:</b> Low	
		<b>Temp/Humidity:</b> 52°F / 82%		Type	Coverage	Base (ft)	Tops (ft)
<b>Liftoff Winds (200'):</b> 200° 15 - 20 mph		Cirrostratus	Scattered	22,000	25,000	<b>Solar Activity:</b> Low	
<b>Next Forecast Will Be Issued</b>		As Required					

**Note:** The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.